CLAIMS

What is claimed is:

1. A method comprising:

detecting a communications interface type of a device as one of a wireless communications interface and a wireless/wired communications interface;

when a wireless/wired communications interface is detected as the device communications interface type, detecting a communications mode of the device as one of a wireless communications mode and a wired communications mode;

when a wired/wireless communications interface type is detected, determining a data transmission error rate of the device during operation of the device in the wireless communications mode; and

switching the device from the wireless communications mode to a wired communication mode when the data transmission error rate of the device exceeds a pre-determined threshold.

2. The method of claim 1, wherein prior to detecting the device communications interface type, the method further comprises:

determining a communications interface type of the device;

setting a device communications interface state according to the determined communications interface type;

when a wireless/wired communications interface is detected as the communications interface type, determining whether a wire link is coupled to the device;

setting a wired connection state according to the determined wired connection;

when a wire link is coupled to the device, selecting a communications mode as one of a wireless communications mode and a wired communications mode according to the device communications configuration state, the wired connection state and a radio frequency interference level; and

setting a device communications mode state according to the selected communications mode.

3. The method of claim 2, wherein selecting the communications mode further comprises:

when the device communications interface state indicates a wireless/wired communications interface and the wired connection state indicates presence of a wire link, determining a radio frequency interference level; and

when the radio frequency interference level exceeds a pre-determined interference level, setting the communications mode to the wired communications mode.

4. The method of claim 1, wherein detecting the communications configuration of the device further comprises:

querying a device communications configuration state to detect the communications interface type of the device; and

when the communications interface type of the device is a wireless/wired communications interface, querying a wired connection state to determine whether a wire link couples the device to a host device.

5. The method of claim 1, wherein determining the data transmission error rate further comprises:

querying a device communications mode state to determine a communications mode of the device; and

when the communications mode of the device is the wired communications mode, determining the data transmission error rate of the device by querying a data transmission error rate state.

6. The method of claim 1, wherein switching the device further comprises:

comparing the determined data transmission error rate to a pre-determined threshold error rate;

when the data transmission error rate exceeds the pre-determined threshold error rate, setting the device communications mode state to the wired communications mode;

initiating communication of the device via a wire link;

otherwise, setting the device communications mode to a wireless communications mode; and

initiating communication of the device via a wireless link.

7. The method of claim 1, wherein switching the device further comprises:

comparing the transmission error rate with a pre-determined threshold error rate;

when the transmission error rate exceeds the pre-determined threshold error rate, querying a wired connection state to determine presence of a wire link coupled to the device;

when a wired connection is coupled to the device, switching the device from the wireless communications mode to the wired communications mode;

otherwise, notifying a device user to couple a wire link between the device and a host device; and

once the user couples a wire link between the device and the host device, switching the device from the wireless communications mode to the wired communications mode.

8. The method of claim 7, further comprising:

comparing the transmission error rate with a pre-determined threshold error rate;

when the transmission error rate is below the pre-determined threshold error rate, notifying the user to disconnect the wire link between the device and the host device; and

once the user disconnects a wire link between the device and the host device, switching the device from the wired communications mode to the wireless communications mode.

9. The method of claim 1, wherein switching the device further comprises:

transmitting data, via a wire link, between the device and a host device, utilizing the wired communication mode; and

receiving data, via the wire link, from the host device, utilizing the wired communications mode.

10. The method of claim 1, wherein switching the device further comprises switching a host device, coupled to the device via a wire link, from the wireless communications mode to the wired communications mode.

11. A computer readable storage medium including program instructions that direct a computer to function in a specified manner when executed by a processor, the program instructions comprising:

detecting a communications interface type of a device as one of a wireless communications interface and a wireless/wired communications interface;

when a wireless/wired communications interface is detected as the device communications interface type, detecting a communications mode of the device as one of a wireless communications mode and a wired communications mode;

when a wired/wireless communications interface type is detected, determining a data transmission error rate of the device during operation of the device in the wireless communications mode; and

switching the device from the wireless communications mode to a wired communication mode when the data transmission error rate of the device exceeds a pre-determined threshold.

12. The computer readable storage medium of claim 11, wherein prior to detecting the device communications interface type, the method further comprises:

determining a communications interface type of the device;

setting a device communications interface state according to the determined communications interface type;

when a wireless/wired communications interface is detected as the communications interface type, determining whether a wire link is coupled to the device;

setting a wired connection state according to the determined wired connection;

when a wire link is coupled to the device, selecting a communications mode as one of a wireless communications mode and a wired communications mode according to the device communications configuration state, the wired connection state and a radio frequency interference level; and

setting a device communications mode state according to the selected communications mode.

13. The computer readable storage medium of claim 12, wherein selecting the communications mode further comprises:

when the device communications interface state indicates a wireless/wired communications interface and the wired connection state indicates presence of a wire link, determining a radio frequency interference level; and

when the radio frequency interference level exceeds a pre-determined interference level, setting the communications mode to the wired communications mode.

14. The computer readable storage medium of claim 11, wherein detecting the communications configuration of the device further comprises:

querying a device communications configuration state to detect the communications interface type of the device; and

when the communications interface type of the device is a wireless/wired communications interface, querying a wired connection state to determine whether a wire link couples the device to a host device.

15. The computer readable storage medium of claim 11, wherein determining the data transmission error rate further comprises:

querying a device communications mode state to determine a communications mode of the device; and

when the communications mode of the device is the wired communications mode, determining the data transmission error rate of the device by querying a data transmission error rate state.

16. The computer readable storage medium of claim 11, wherein switching the device further comprises:

comparing the determined data transmission error rate to a pre-determined threshold error rate;

when the data transmission error rate exceeds the pre-determined threshold error rate, setting the device communications mode state to the wired communications mode;

initiating communication of the device via a wire link;

otherwise, setting the device communications mode to a wireless communications mode; and

initiating communication of the device via a wireless link.

17. The computer readable storage medium of claim 11, wherein switching the device further comprises:

comparing the transmission error rate with a pre-determined threshold error rate;

when the transmission error rate exceeds the pre-determined threshold error rate, querying a wired connection state to determine presence of a wire link coupled to the device;

when a wired connection is coupled to the device, switching the device from the wireless communications mode to the wired communications mode;

otherwise, notifying a device user to couple a wire link between the device and a host device; and

once the user couples a wire link between the device and the host device, switching the device from the wireless communications mode to the wired communications mode.

18. The computer readable storage medium of claim 17, further comprising:

comparing the transmission error rate with a pre-determined threshold error rate;

when the transmission error rate is below the pre-determined threshold error rate, notifying the user to disconnect the wire link between the device and the host device; and

once the user disconnects a wire link between the device and the host device, switching the device from the wired communications mode to the wireless communications mode.

19. The computer readable storage medium of claim 11, wherein switching the device further comprises:

transmitting data, via a wire link, between the device and a host device, utilizing the wired communication mode; and

receiving data, via the wire link, from the host device, utilizing the wired communications mode.

20. The computer readable storage medium of claim 11, wherein switching the device further comprises switching a host device, coupled to the device via a wire link, from the wireless communications mode to the wired communications mode.

21. An apparatus, comprising:

a processor having circuitry to execute instructions;

a communications interface coupled to the processor, the communications interface to transmit data to a host device, and to receive data from the host device;

a connection port coupled to the processor to enable coupling of the apparatus to the host device via a wire link;

a wired/wireless detection unit to detect whether the apparatus is coupled to the host device via the wired link; and

a storage device coupled to the processor, having sequences of instructions stored therein, which when executed by the processor cause the processor to:

determine a data transmission error rate of the apparatus during operation of the apparatus in a wireless communications mode, and

switch the apparatus from the wireless communications mode to a wired communication mode when the data transmission error rate of the apparatus exceeds a pre-determined threshold error rate.

22. The apparatus of claim 21, wherein the instruction to switch the apparatus from the wireless communications mode to the wired communications mode further causes the processor to:

compare the transmission error rate with a pre-determined threshold error rate;

when the transmission error rate exceeds the pre-determined threshold error rate, query the wired/wireless detection unit to determine presence of a wire link coupled to the apparatus connection port;

when the wired link is coupled to the apparatus connection port, switch the apparatus from the wireless communications mode to the wired communications mode;

otherwise, notify an apparatus user to couple the wire link between the apparatus and the host device; and

once the user couples the wire link between the apparatus and the host device, switch the apparatus from the wireless communications mode to the wired communications mode.

23. The apparatus of claim 22, wherein the processor is further caused to

compare the transmission error rate with a pre-determined threshold error rate;

when the transmission error rate is below the pre-determined threshold error rate, notify the user to disconnect the wire link between the apparatus and the host device; and

once the user disconnects the wire link between the apparatus and the host device, switch the device from the wired communications mode to the wireless communications mode.

24. A system comprising:

a host device;

a wireless/wired communication device including:

a communications interface, the communications interface to transmit data to the host device, and to receive data from the host device via a wire link during a wired communications mode and a wireless link during a wireless communications mode,

a connection port coupled to the communications interface to enable coupling of the communication device to the host device via the wire link, and

a wired/wireless detection device coupled to the communications interface to detect whether the communication device is coupled to the host device via the wire link, such that the communication device switches from the wireless communications mode to the wired communication mode when the data transmission error rate of the communication device exceeds a pre-determined threshold.

25. The system of claim 24, wherein the host device comprises:

a host communications interface, the host communications interface to transmit data to the communications device, and to receive data from the communications device via the wire link during the wired communications mode and the wireless link during the wireless communications mode; and

a host connection port coupled to the host communications interface to enable coupling of the host device to the communications device via the wire link.

26. The system of claim 24, wherein the communication device further comprises:

a user interface coupled to the communications interface, the user interface to notify the user to disconnect the wire link between the communication device and the host device when the transmission error rate is below the pre-determined threshold error rate, and once the user disconnects a wire link between the device and the host device, to switch the device from the wired communications mode to the wireless communications mode.